

RUMYANTSEV, V.; ABRAMOV, S., glavnnyy revizor (Kiyev)

Great force. Prom.koop. 14 no.7:27 J1 '60.
(MIRA 13:8)

1. Nachal'nik otdela kadrov i orgraboty Ukrpromsoveta,
Kiyev (for Rumyantsev).
(Ukraine—Cooperative societies—Auditing and inspection)

GOLOVIN, Ye. (Leningrad); RUMYANTSEV, V.; PERELYGIN, D (Yaroslavl');
POPOV, M. (Astrakhan'); CHIKOV, T. (Moskva); KOROLEV, N., master
sporta (Moskva)

We need a good stabilized program for a composite aquatic event.
(MIRA 12:12)
Voen. znan. 35 no.7:30-31 J1 '59.
(Aquatic sports)

RUMYANTSEV, V., master sports

Better oars for a six-oar shell. Voen. znan. 35 no.10:35 0 '59.
(MIRA 12:12)

(Rowing)

RUMYANTSEV, V. (Kiyev)

For greater activity of the inspection committee. Prom.koop. no.1:
35-36 Ja '57.

(MIRA 10:4)

1. Nachal'nik organizatsionno-revizionnogo upravleniya Ukrpromsoveta.
(Cooperative societies)

RUMYANTSEV, V. (Kiyev); ABRAMOV, S. (Kiyev)

Improve the protection of cooperative property. Prom. koop. 12
no.10:16-17 O '58. (MIRA 11:10)

1. Nachal'nik otdela kadrov i orgrevizionnoy raboty Ukrpromsoveta
(for Rumyantsev). 2. Starshiy inspektor Ukrpromsoveta (for Abramov).
(Ukraine--Cooperative societies--Auditing and inspection)

RUMYANTSEV, V., inzh.

Self-service elevators in apartment houses. Zhil.-kom. khoz. 8 . . .
no. 8:24-25 '58. (MIRA 11:8),

1. Liftovoye khozyaystvo doma No. 1/15 na Kotel'nicheskoy naberezhnoy,
Moskva.
(Elevators, Automatic)

RUMYANTSEV, V.

For the honor of the factory trademark. Sots.trud 7 no.4:116-
123 Ap '62. (MIRA 16:1)

1. Zamestitel' zaveduyushchego promyshlennym otdelom
Leningradskogo oblastnogo komiteta Kommunisticheskoy partii
Sovetskogo Soyuza.
(Leningrad Province—Quality control)

RUMYANTSEV, V. A.

USSR/Engineering - Compressors

Card 1/1 Pub. 128 - 2/32

Authors : Rumyantsev, V. A.

Title : Some problems on standardizing piston-type compressors

Periodical : Vest. mash. 11, 5-12, Nov 1954

Abstract : Recent developments of the chemical industry, air conditioning industry, etc., necessitate the conversion and design of a new type of gas and air compressor. For this purpose operational tests were conducted on existing compressors to determine their adaptability and extent of standardization for use in various branches of industry. Tables; diagrams; illustrations.

Institution :

Submitted :

MUNTYAN, Yu.S., inzhener; RUMYANTSEV, V.A.

Some operating characteristics of membrane compressors used
as circulating pumps. Sbor. st. NIISKHIMMASH no.18:78-87 '54.
(MIRA 8:9)

(Air compressors) (Pumping machinery)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6

RUMYANTSEV, V.A.; VERSHOK, A.B.; ASLANOV, G.V.

Standardizing piston rings in compressor construction. Sbor.
st. NIIKHIMMASH no.18:103-125 '54. (MLRA 8:9)
(Air compressors) (Piston rings--Standards)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6"

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6

RUMYANTSEV, V.A.

Modern designs of high-pressure compressors. Khim. nauka i prem. 1
no.6:688-692 '56. (MLRA 10:3)
(Air compressors)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6"

SHAPIRO, M. B., inzhener; RUMYANTSEV, V. A., inzhener.

Increasing the durability of compressor valve disks. Vest. mash.
36 no.8:3-6 '56. (MLRA 9:10)

(Valves)

RUMYANTSEV, V.A.

AUTHOR: Rumyantsev, V.A., Engineer, NIIKhIMMash. 28-4-3/35

TITLE: Some Results of Piston Compressor Normalization (Nekotoryye itogi normalizatsii porshnevых kompressorov)

PERIODICAL: Standartizatsiya, 1957, # 4, pp 13 - 19 (USSR)

ABSTRACT: Detailed data is given on the design and characteristics of piston compressors which are now normalized or standardized. NIIKhIMMash, TsKB KhM and the refrigerating machinery plants are referred to as having done the work.

The characteristics of stationary general-use air compressors, according to the FOCT 6791-53, are shown (Table 1); the basic components of these are applicable for other compressors. The normalized series of these machines serves as a basis for development of other designs, as was done with the compressors CA and CG of the plant "Borets" and the 2 P 3/220, 2 PK1-220, 3 P 7/220 being made by other plants. For new machines, with and without crossheads, the V-design with cylinders at a 90° angle (used in USA, German Democratic Republic, Italy, Switzerland and other countries) was chosen. Compressors without crossheads are normalized within the group itself and differ by the number of cylinders, design of the refrigerator, casing and crankshaft.

Card 1,3

Some Results of Piston Compressor Normalization

28-4-3/35

The piston, connecting rod and cylinder groups, including the valves, are identical. As may be seen in cross sections of the compressor BY 3/8 (Fig. 1) and BY 6/8 (Fig. 2), the cylinders, pistons and piston-rods, valves, oil pumps and some other components are identical. The stationary machines are water-cooled. Soon aircooled compressors of the same characteristics will be produced; they will have the same parts and components - except cylinders - as the BY type. All machines without crossheads are driven directly by 960 rpm motors and have an equal piston-stroke. The Soviet models of such compressors differ from foreign designs by a smaller piston-stroke diameter ratio (Foreign - 0.66/1.0, Soviet 0.5/1.0) but have a very high volume coefficient because of the self-springing (samopruzhinyashchiye) strip valves which have a small dead space.

Design features of two-stage BN type crosshead compressors are described and illustrated by a drawing (Fig. 3). Their characteristics are given in table 2. The Leningrad branch office of NIIKhIMMash has accepted for production 6 normalized horizontal design bases (Table 5) which are used for horizontal compressors now in production, including the largest.

Refrigerating freon and ammonia compressors are standardized by FOCT 6492-53 "Compressors, Piston, for Refrigerating Devices.

Card 2/3

Some Results of Piston Compressor Normalization

28-4-3/35

Types and Basic Parameters".

The gradation coefficients employed in normalization of compressor productivity ($K=2$) are given, as are those for piston pressure for horizontal design ($K=1.5$) and the accepted pressures (in atmospheres) for various groups of compressors. The author states that only the first steps in the standardization and normalization of piston compressors have been taken. There are 3 figures and 5 tables.

ASSOCIATION: NIIKhIMMash

AVAILABLE: Library of Congress

Card 3/3

RUMYANTSEV, V.A.

RUMYANTSEV, V.A., dots.

Development of the piston compressor industry in U.S.S.R.
(MIRA 10:12)
Vest.mash. 37 no.12:14-18 D '57.
(Air compressors)

"Methodology of Planning and Substantiating Standardized [Preferred Numbers]
Series of Piston Compressors," Materials for the Second [Dec. 1956] and Third
[May 1957] Conferences on Standardization and Normalization in Machine Build-
ing) Moscow, Standartgiz, 1958.

Coverage: The book contains abbreviated versions of lectures given during the
2nd and 3rd Scientific Methodology Conferences held in December 1956 and May 1957
respectively.

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6

VASSERMAN, O.S.; RUMYANTSEV, V.A.; FIGLIN, I.Z.

Increasing the performance of trench chain excavators. Stroi. i dor.
mashinostro. no.4:4-5 Ap '58. (MIRA 11:4)
(Excavating machinery)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6"

LAPPO, L.L., inzh.; RUMYANTSEV, V.A., inzh.; FIGLIN, I.Z., inzh.

The ETU-354 excavator with a bucketless working element. Stroi.
i dor. mash. 10 no.4:10-11 Ap '65. (MIRA 18:5)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6

RUMYANTSEV, V.A.

Two-way brake for hoisting and conveying machinery. Stroi. i
dor. mash. 10 no.6;32 Je '65. (MIRA 18:8)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6"

RUMYANTSEV, V.A., inzh.

Reinforced concrete frame for EM-201 quarry excavators. Stroi.
i dor. mash. 8 no.1:12-13 Ja '63. (MIRA 18:5)

RUMYANTSEV, V.A., inzh.

Transducer for preventing the breakdown of transmission units.
Stroi. i dor. mash. 10 no.4:20-21 Ap '65.

(MIRA 12:5)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6

ABRAMOV, Kh.T.; RUMYANTSEV, V.A.

Introducing the Pshch-3,6 heading combine. Biul. tekhn.-ekon.
inform. Gos. nauch.-issel. inst. nauch. i tekhn. inform. 17
no.12-16-17 D '64. (MIRA 18:3)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6"

EMINOV, Ye.A.; SINITSYN, V.V.; OSHER, R.N.; CHEKAVTSEV, N.A.; PATSUKOV, I.P.; USOV, A.A.; FUKS, G.I.; VLADZIYEVSKIY, A.P.; AVDEYEV, A.V.; ARZUMANOV, Sh.P.; PETROV, G.G.; KOZOREZOVA, A.A.; LISITSKIY, K.Z.[deceased]; YAKOBI, M.A.; BELYANCHIKOV, G.P.; IVANOV, V.S.; VORONOV, N.M.; RUMYANTSEV, V.A.; TROFIMUK, V.A.; BERSHTADT, Ya.A.; ZILLER, G.K.; BEREZHNAЯ, V.D.; KLEYMENOVA,K.F., ved.red.; TITSKAYA, B.F., ved. red.

[Manual on the use and norms for the expenditure of lubricants]
Spravochnik po primeneniiu i normam raskhoda smazochnykh metrialov. 2. perer. i dop. izd. Moskva, Khimiia, 1964. 855 p.
(MIRA 18:3)

GOLOVINTSOV, A.G., doktor tekhn.red, prof. [deceased]; RUMYANTSEV,
V.A., dota.; ARDASHEV, V.I.; PESHTI, Yu.V.; PLASTININ, P.I.;
SUSLOV, A.D.; FROLOV, Ye.S.; YAMINSKIY, V.V.; STRAKHOVICH, K.I.,
doktor tekhn.nauk, prof., retsentent; PALEYEV, N.M., inzh., red.

[Rotary compressors] Rotatsionnye kompressory, [By] A.G.
Golovintsov i dr. Moskva, Izd-vo "Mashinostroenie," 1964.
314 p. (MIRA 17:7)

1. Fakul'tet teplovyykh i gidravlicheskikh mashin Moskovskogo
vysshego tekhnicheskogo uchilishcha imeni N.Ye. Faumana
'for all except Strakhovich, Paleyev').

ABRAMSON, Kh.I.; RUMYANTSEV, V.A.

Area of use and economic efficiency of vibration drilling of
boreholes. Trudy TSNII Podzemshakhtstroia no.1:142-157 '62.

(MIRA 16:8)

(Boring)

RUMYANTSEV, V.A.; MOROZOV, Ye.M.; FIGLIN, I.Z.; FILIPPOV, A.G.;
VATINOV, A.A., kand. tekhn. nauk, retsentent;
SAVEL'YEV, Ye.Ya., red.izd-va; UVAROVA, A.F., tekhn.red.

[Chain and bucket trenching excavators] Tsepnye transheinye
ekskavatory. Moskva, Mashgiz, 1963. 129 p. (MIRA 16:12)
(Trench digging machines)

ABRAMSON, Kh.I., inzh.; DMITRIYEVA, Ye.R., ZAGUMENNYY, A.I., inzh.;
KOCHETOV, V.V., inzh.; RUMYANTSEV, V.A., inzh.; STSIPIO, Ye.I., inzh.

[Technological layouts for equipping mine shafts of mining enterprises with solid concrete supports] Tekhnologicheskie skhemy sooruzheniya shakhtnykh stvolov gornykh predpriatii s betonnoi monolitnoi krep'iu. Moskva. Pt.1. [Using KS-3 pneumatic loaders in shaft sinking] Prokhodka stvolov s prime-niem pnevmogruzchikov KS-3. 1962. 34 l. (MIRA 16:6)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut podzemnogo i shakhtnogo stroitel'stva.
(Mine timbering--Equipment and supplies)

RUMYANTSEV, V.A., inzh.

The new ETTs-401 chain trench excavator. Mekh.stroi. 19
no.11:23-24 N '62. (MIRA 15:11)
(Excavating machinery)

KHLUMSKIY, Vladimir [Chlumsky, Vladimir], prof.; TROKHIN, A.A., inzh.
[translator]; RUMYANTSEV, V.A., dots., red.; KYZHOOVA, L.P.,
inzh., red.izd-va; MODEL', B.I., tekhn. red.

[Piston compressors] Porshnevye kompressory. Pod red. V.A.
Rumiantseva. Moskva, Mashgiz, 1962. Translated from the
Czech. (MIRA 15:11)

1. Vysshaya tekhnicheskaya shkola v Prage (for Khlumskiy).
(Compressors)

CHISTYAKOV, F.M.; SUTYRINA, T.M.; PERSTNEV, P.V.; RUMYANTSEV, V.A.,
retsenzent; TSYRLIN, B.L., retsenzent; BEL'KOVICH, A.V.,
red.; GROMOV, A.S., tekhn. red.

[Freon refrigeration turbosystem; installation, construction,
and operation] Freonovy i kholodil'nyi turboagregat; ustroistvo,
montazh, ekspluatatsiia. Moskva, Gos. izd-vo torgovoi lit-ry,
1962. 101 p. (MIRA 15:5)
(Refrigeration and refrigerating machinery)

S/184/62/000/001/002/008
D041/D113

AUTHORS: Zaks, Yu.I.; Nikitin, I.I., Rumyantsev, V.A., Engineers

TITLE: New designs of hermetic water ring vacuum pumps and compressors

PERIODICAL: Khimicheskoye mashinostroyeniye, no. 1, 1962, 4-6

TEXT: The authors describe the design and operation of the new BBH-50 (VVN-50) hermetic water ring vacuum pump (fig. 1) manufactured at the Sumskiy mashinostroitel'nyy zavod im. M.V. Frunze (Sumy Machine-Building Plant im.M.V. Frunze), and compare it with the PMK (RMK) water ring vacuum pump (fig. 1). The VVN-50 pump has a capacity of 50 m³/min, and can be used as a vacuum pump and a low pressure compressor (to 1.5 at). The advantage of the new pump is that it can be more easily used for compressing explosive and toxic gases. This is due to its automatic self-regulating hydraulic packings which prevent the gas from streaming out of the working space and the sealing liquid from flowing out of the system; since the

Card 1/2

New designs of hermetic...

S/184/62/000/001/002/008
D041/D113

shaft packing is located near the liquid and not near the gas as in conventional pumps, the system is still more air-tight. Ejectors operating as booster-pumps can be used to increase the vacuum. As compared to water ring vacuum pumps presently used in the USSR, the VVN-50 pump has the following advantages: (1) specific capacity reduced to 24%; (2) specific water delivery reduced to 50%; (3) weight per 1 m³/min of output reduced to 21% and (4) required floor space reduced by 22%. There are 5 figures and 2 tables.

Card 2/b Z

✓

S/184/62/000/001/003/008
DO41/D113

AUTHOR: Rumyantsev, V. A., Docent

TITLE: Determining the main dimensions of water ring compressors and vacuum pumps

PERIODICAL: Khimicheskoye mashinostroyeniye, no. 1, 1962, 25-31

TEXT: The principal dimensions of water ring compressors and vacuum pumps are at present determined using mainly the results of stand tests as well as the theoretical assumptions of Prof. C. Pfleiderer (Ref. 1: Tsentrrobezhnyye i propellernyye nasosy ["Rotary and Propeller Pumps"], ONTI, 1937); and (Ref. 2: Die Kreiselpumpen für Flüssigkeiten und Gase ["Rotary Pumps for Liquids and Gases"], Springer, 1949). The author developed formulas for calculating the above-mentioned dimensions, also based on Prof. Pfleiderer's assumption that the delivery of liquid in any radial cross section of the ring is constant due to the continuity of the flow. The results obtained using the above method, correlated well with test results. As an example, the outline of the water ring calculated by this method for the PMK-3 (RMK-3) vacuum pump is illustrated in Fig. 5.

Card 1/82

Determining the main dimensions ...

S/184/62/000/001/003/008
D041/D113

It shows a slight increase in the wheel immersion; if the suction and pressure ports were increased and the wheel immersion slightly decreased, the productivity of the pump would increase and its specific capacity decrease. There are 8 figures and 3 references, 1 Soviet, bloc and 2 non-Soviet.

Card 2/2

STRAKHOVICH, K.I., PROF.: FRENKEL', M.I., kand. tekhn. nauk; KONDRYAKOV, I.K., kand. tekhn. nauk; RIS, V.F., kand. tekhn. nauk. Prinimal uchastiye NOVOTEL'NOV, V.N., assistent; RUMYANTSEV, V.A., spets. red.; NIKOLAYEVA, N.G., red.; EL'KINA, E.M., tekhn. red.

[Compressors] Kompreessornye mashiny. By K.I.Strakhovich i dr. Mo-skva, Gos.izd-vo torg.lit-ry, 1961. 600 p. (MIRA 15:1)

1. Kafedra glubokogo okhlazhdeniya Leningradskogo tekhnologicheskogo instituta kholodil'noy proryshlennosti (for Novotel'nov).
(Compressors)

PESHTI, Yu.V., inzh.; RUMYANTSVE, V.A., dotsent

Investigation of certain materials for rotary compressor and vacuum
pump blades. Khim.mash. no.3:28-29 My-Je '61. (MIRA 14:5)
(Chemical engineering—Equipment and supplies)

ZAKHARENKO, Semen Yefremovich, prof.; ANISIMOV, Sergey Aleksandrovich,
dots.; DMITREVSKIY, Vladimir Alekseyevich, dots.; KARPOV, Grigoriy
Vasil'yevich, dots.; FOTIN, Boris Stepanovich, dots.; RUMYANTSEV,
V.A., kand. tekhn. nauk, retsenzent; ROZENFEL'D, L.M., doktor, tekhn.
nauk, retsenzent; LIFSHITS, S.P., kand. tekhn. nauk, red.; VASIL'YEVA,
V.P., red. izd-va; DUDUSOVA, G.A., red. izd-va; SIMONOVSKIY, N.Z.,
red. izd-va; SHCHETININA, L.V., tekhn. red.

[Piston compressors] Porshnevye kompressory. Moskva, Gos. nauchno-
tekhn. izd-vo mashinostroit. lit-ry, 1961. 454 p. (MIRA 14:8)
(Compressors)

15 8340

21923

S/184/61/000/003/001/004
D041/D113

AUTHOR: Peshti, Yu. V., Engineer, Rumyantsev, V. A., Docent

TITLE: Investigation of some materials for the blades of rotary compressors and vacuum pumps

PERIODICAL: Khimicheskoye mashinostroyeniye, no. 3, 1961, 28-29

TEXT: A series of blades made of powder plastics and textolites to be used for rotary compressors and vacuum pumps have been tested at the MVTU im. Bauman. ПТ (PT), ПТ-1 (PT-1) and ПТК (PTK) textolite blades, composed primarily of cotton, laminated within 24 hours of continuous operation. Sometimes the blades carbonized by $\frac{1}{3}$ of their height and disintegrated into pieces without even completing 24 hours operation. Experiments by D.M. Khayt have shown (Ref.1: Nemetallicheskiye podshipniki skol'zheniya [Non-metallic journal bearings], Mashgiz, 1949) that the resin quantity in the textolite considerably affects the wear resistance and friction. Textolite with the best resistance to wear has a resin content of up to 52-55%. Light-fabric textolite has a 40-46% resin content, and coarse fabric textolite a content of 52-55%. In contrast to light fabrics, coarse heavy fabrics do

Card 1/4

21923

S/184/61/000/003/001/004
DO41/D113

Investigation of some materials

not completely absorb the resin and due to pores, retain the lubricant better, thus reducing the friction effect and temperature as described by V.K. Petrichenko (Ref.2: Podshipniki i shesterni iz plastmass [Plastic bearings and gears], Mashgiz, 1952). The MVTU experiments have shown that antifriction, non-corrosion, and phenolite-5 plastics have, in comparison with PTK textolites, a high brittleness; PCT (RST) phenolite blades (due to 30% content of glass fiber), were worn out within the first 100 working hours at the upper part by 0.07 mm; after 200 hours by 0.12 mm, and after 300 hours by 2.5 mm. Blades made of PTK textolite with an addition of graphite showed after 70 hours a good resistance to wear, a lower friction as compared to the PTK textolite, but a higher degree of lamination. Asbestotextolite blades were tested in a compressor for 394 hours, and in a vacuum pump for 264 hours. Satisfactory results were obtained in both cases. Asbestotextolite blades in an ammonia medium have been successfully applied at the Vsesoyuznyy nauchno-issledovatel'skiy kholodil'nyy institut (All-Union Scientific Research Refrigeration Institute) on recommendation of the MVTU. All blades of the above-mentioned materials have been tested on a special bench (Fig.2); an electric motor (1) and a compressor cylinder (2) suspended on ball bearing supports (3). The friction moments were compen-

Card 2/4

21923

S/184/61/000/003/001/004

D041/D113

Investigation of some materials

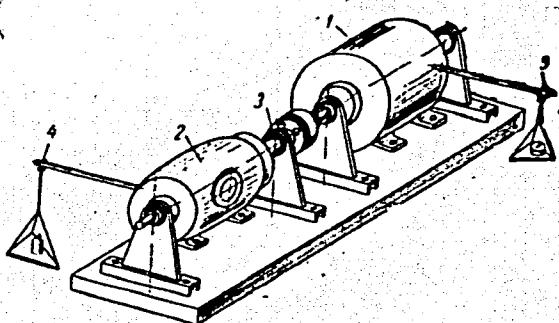
sated by a weight on the pan of the cylinder balance (4) and the motor balance (5). In order to eliminate the compression force, apertures were bored into the cylinder covers, so that the cylinder pressure was approximately equal to atmospheric pressure. It is concluded that the use of PT, PTK, and PT-1 textolite blades for rotary compressors and vacuum pumps is not recommended. Asbestotextolite is the best material for air and ammonia rotary blade compressors and vacuum pumps working with a lubricated cylinder at average circular velocities of the blade tip of 15-17 m/sec. The blade wears out by 0.1 mm every 100 working hours. It is also recommended to add graphite to the asbestotextolite in order to improve its antifrictional characteristics. Asbestotextolite hardens during the working process; therefore, preliminary thermal treatment is necessary. The thermal treatment of the blade is effected in compressor oil; the blade is put into a vat in such a way as not to touch the bottom. The oil temperature in the vat is gradually increased to 150-170°. This temperature is maintained for 10-12 hours; then the vat together with the blades is cooled down to room temperature. After thermal treatment, the length of a 473 mm long blade is reduced by 3 mm. There are 3 figures and 2 Soviet-bloc references.

Card 3/4

Investigation of some materials

21923
S/184/61/000/003/001/004
D041/D113

Fig.2: Test bench for measuring the friction power.



Фиг. 2. Схема стенда по замеру мощности трения.

Card 4/4

GOLODOVSKIY, Yekov Yeosmyevich; ISPOLATOV, Yuriy Veniaminovich;
KALAMKAROV, Rafael' Grigor'yevich; PODKOLZIN, Aleksey Vasil'yevich;
RUMYANTS'EV, Vladimir Alekseyevich; PERLINE, V.S., red.;
OKUNEV, Yu.K., podpolkovnik, red.; MMDNIKOVA, A.N., tekhn.red.

[The ZIL-157 motortruck] Avtomobil' ZIL-157. Moskva, Voen.
izd-vo M-va obor.SSSR, 1960. 327 p. (MIRA 13:11)

1. Russia (1923- U.S.S.R.) Avtotraktornoye upravleniye.
(Motortrucks)

RUMYANTSEV, V.A., podpolkovnik med. sluzhby

Treatment of neurasthenic patients at the Solnechnogorsk sanatorium.
Voen.-med. zhur. no.6:86 Je '58. (MIHA 12:7)
(NEURASTHENIA)

EMINOV, Ye.A.; OSHER, R.N.; PATSUKOV, I.P.; CHEKAVTSEV, N.A.; MAZYRIN, I.V.; FUKS, G.I.; VLADZIYEVSKIY, A.P.; PATSUKOV, I.P.; AVDEYEV, A.V.; LOPOYAN, G.S.; PETROV, G.G.; KOZOREZOVA, A.A.; LISITSKIY, K.Z.; YAKOBI, M.A.; BELYANCHIKOV, G.P.; IVANOV, V.S.; VORONOV, H.M.; RUMYANTSEV, V.A.; ZILLER, G.K.; BEREZHNAЯA, V.D.; LEVINA, Ye.S., vedushchiy red.; TROFIMOV, A.V., tekhn.red.

[Manual on the uses and consumption standards of lubricants] Spravochnik po primeneniiu i normam raskhoda smazochnykh materialov. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 703 p.

(Lubrication and lubricants)

(MIRA 13:4)

MATRONIN, S.V.; LISICHKIN, V.Ye.; MEL'NIKOV, N.I.; RUMYANTSEV, V.A.,
dots., retsentent; MAKOVSKIY, G.M., inzh., red.;

[Testing compressing machines] Ispytanie kompressornykh ma-
shin. Moskva, Izd-vo "Mashinostroenie," 1964. 182 p.
(MIRA 17:7)

RUMYANTSEV, V.B.

Problems of preoperative care and anesthesia in emergency operations
for hemorrhagic gastric and duodenal ulcer. Eksper. khir. i anest. 9
no.2:71-74. Mr-Apr '64. (MIRA 17:11)

1. Anesteziologicheskoye otdeleniye (zav. B.G. Zhilis, glavnyy khirurg-
chlen-korrespondent AMN SSSR prof. B.A. Petrov) Instituta imeni Sklifov-
skogo (dir. M.M. Tarasov), Moskva.

CHETVERUSHKIN, B.V.; RUMYANTSEV, V.B.

Comparative course of the operative period in patients during surgery for an acute craniocerebral trauma under various types of anesthesia. Trudy Inst. im. N.V. Sklif. 8:43-46 '63.

(MIRA 18:6)

1. Institut skoroy pomoshchi imeni Sklifosovskogo, Moskva.

CHETVERUSHKIN, B.V.; RUMYANTSEV, V.B.; IOFFE, Yu.S.

Anesthesia in carrying out cerebral angiography in patients
with acute craniocerebral traumas. Trudy Inst. im. N.V. Sklif.
8:122-126 '63. (MIRA 18:6)

1. Institut skoroy pomoshchi imeni Sklifosovskogo, Moskva.

RUMYANTSEV, V.E., mladshiy nauchnyy sotrudnik

Anesthesia in surgery on peptic ulcer of the stomach and duodenum
and its complications in elderly and senile patients. Trudy Inst.
im. N.V. Sklif. 9:202-205 '63. (MIPA 18:6)

I. Moskovskiy gorodskoy nauchno-issledovatel'skiy institut ekoroy
pomoshchi imeni Sklifosovskogo.

CHETVERUSHKIN, B.V.; RUMYANTSEV, V.B.

Ways of reducing hemorrhage in traumatological and orthopedic operations. *Khirurgija* 40 no.5:33-37 My '64. (MIRA 18:2)

1. Travmatologicheskaya klinika i anesteziologicheskoye otdeleniye Instituta skoroy pomoshchi imeni Sklifosovskogo (rukoveditel' - prof. I.I. Sokolov, glavnnyy khirurg - chlen-korrespondent AMN SSSR prof. B.A. Petrov, dir. M.M. Tarasov).

FAYNBRUN, O.D.; RUMYANTSEV, V.B.

Spinal anesthesia as a method for regional hypotension. Khirurgija
40 no.7:40-44 Jl '64. (MIRA 1E:2)

1. Anesteziologicheskoye otdeleniye (zav. B.G. Zhilis) Instituta
imeni Sklifosovskogo, Moskva.

RUMYANTSEV, V.B.

Anesthesia in hemorrhagic gastric and duodenal ulcers. Khirurgija 39 no.7:99-106 Jl'63 (MIRA 16:12)

1. Moskovskiy gorodskoy órdena Trudovogo Krasnogo Znameni nauchno-issledovatel'skiy institut skoroy pomoshchi imeni N.V. Sklifosovskogo (zav. anesteziologicheskim otdeleniyem B.G. Zhilis, glavnyy khirurg - chlen korrespondent AMN SSSR prof. B.A. Petrov).

CHETVERUSHKIN, B.V.; RUMYANTSEV, V.B.

Characteristics of the preanesthetic preparation of elderly
and senile patients. Sov.med. 26 no.1:42-46 Ja '63.
(MIRA 16:4)

1. Iz otdeleniya anesteziologii (zav. B.G. Zhiliš) Instituta
skoroy pomoshchi imeni N.V.Sklifosovskogo (glavnnyy khirurg -
zasluzhennyy deyatel' nauki prof. B.A.Petrov, dir. -
zasluzhennyy vrach UkrSSR M.M.Tarasov) Moskva.
(ANESTHESIA) (GERIATRICS)

NYAGU, M. [Neagu, M.]; BEZHAN, T. [Bejan, T.]; RUMYANTSEV, V.F. [translator]
(Rumyniya, Bukharest)

"Viticulture" by T.Martin. Reviewed by M.Niagu, T.Bezhan.
Agrobiologija no.1:154 Ja-F '63. (MIRA 16:5)
(Rumania—Viticulture) (Martin, T.)

RUMYANTSEV, V.G.

POPOV, G.N., professor, doktor tekhnicheskikh nauk; RYCHIK, P.F., kandidat
tekhnicheskikh nauk; RUMYANTSEV, V.G., inzhener; TARAKANOV, G.M., inzhener.

Metal rod supports in stoping. Gor. zhur. no. 9:27-29 S '57. (MILR 10:2)
(Mine timbering)

RUMYANTSEV, V.A., inzhener.

Results of the standardization of piston compressors. Standartizatsiya
no.4-13-19 Je-Ag '57. (MLRA 10:9)

1. Nauchno-issledovatel'skiy institut khimicheskogo mashinostroyeniya.
(Compressors--Standards)

RUMYANTSEV, V.G.

RYCHIK, F.F., dotsent, kandidat tekhnicheskikh nauk; RUMYANTSEV, V.G.,
gornyy inzhener; MOROZOV, V.I., gornyy inzhener; TARAKANOV, G.M.,
gornyy inzhener.

Boring with small diameter bits. Gor. zhur. no.8:76-77 Ag '57.
(Boring machinery) (MLRA 10:9)

RUMYANTSEV, V.I., kandidat sel'skokhozyaystvennykh nauk.

Measures for the accumulation and conservation of soil moisture
in the southeast. Zemledelie 5 no.3:48-50 Mr '57. (MLRA 10:3)
(Buzuluk District—Soil moisture)

RUMYANTSEV, V. I.

Politorgany i partorganizatsii flota v bor'beza dosrochnoe plana perevozok 1951 g.
The political organs and party organizations of the merchant marine - in the
struggle for early fulfilment of the plan for freight transportation in 1951.
(Morskoi flot, April 1951, v. 11, no. 4, p. 1.)

DLC: VM, M6

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress
Reference Department, Washington, 1952, Unclassified.

RUMYANTSEV, V.

1. RUMYANSTEV, V.
2. USSR (600)
4. Merchant Marine
7. More important objectives of the political departments. Mor. flot 13,
No. 1, 1953.
9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

RUMYANTSEV, V.

Tasks of political and party organizations in executing the decisions of the September and February-March Plenums of the Central Committee of the Communist Party of the Soviet Union.
Mor. i rech.flot 14 no.5:1-3 My '54. (MLRA 7:7)

1. Nachal'nik Politupravleniya MMRF.
(Transportation)

RUMYANTSEV, V.

Strengthening work discipline is a major problem for the commanding personnel of the fleet. Mor.flot 15 no.8:1-4 Ag'55.
(MLRA 8:10)

1. Nachal'nik Politupravleniya Ministerstva morskogo flota
(Merchant marine)

RUMYANTSEV, V.I.; VЕCHKANOV, G.N.; YEZHОV, V.A.; KOSTENKO, V.G.

Nature of acids present in a second butyl acetate solution of
penicillin. Uch. zap. Mord. gos. un. no.27:25-31 '63.
(MIRA 19:1)

RUMYANTSEV, V.I.; YEZHOV, V.A.; BORISKOVA, P.I.

Preparation of a demulsifier based on C₁₅ - C₂₀ synthetic
aliphatic alcohols. Uch. zap. Mord. gos. un. no.27:36-38 '63.

Some recommendations for the preservation of a penicillin
micelle and retention of its feeding value. Ibid.:39-42
(MIRA 19:1)

RUMYANTSEV, V.I., prof.

Agricultural importance of stubble plowing. Zemledelie 27 no.7:
22-25 J1 '65. (MIRA 13:7)

1. Zaveduyushchiy kafedroy zemledeliya Vsesoyuznogo sel'sko-khozyaystvennogo instituta zaochnogo obrazovaniya.

1. 62947-65 EWT(1)/EWA(j)/EWT(m)/EPF(c)/EWA(d)/EWP(t)/EWA(b)-2/EWP(b)

JD/WB/RO

ACCESSION NR: AP5019289

UR/0332/65/000/007/0038/0040
665.3/35:54-114:615.779.9

AUTHOR: Rumyantsev, V. I. (Engineer); Yezhev, V. A. (Engineer)

TITLE: Use of synthetic aliphatic alcohols and alkyl sulfates in the production of antibiotics

SOURCE: Maslozhivotnaya promyshlennost', no. 7, 1965, 38-40

TOPIC TAGS: antifoaming agent, penicillin production, streptomycin production, aliphatic alcohol, surface active agent

ABSTRACT: The authors verified the possibility of using a series of products manufactured by the Shebekinskiv khimkombinat (Shebekino Chemical Complex) by direct oxidation of paraffins for the production of antibiotics. Use was made of aliphatic alcohols and alkyl sulfates obtained from these alcohols in the form of extracted and unextracted pastes. Tests of the pastes as antifoaming agents in the fermentation of penicillin established that they were not suited for this purpose, so that further tests were conducted with the aliphatic alcohols, sperm oil being used as the control. The alcohols were found to have sufficient antifoaming properties. The influence of admixtures of alcohols on the fermentation process from the standpoint of accumulation of the biomass of the producer and antibiotic formation was determined, and permissible concentrations of the antifoaming agent

Card 1/2

L 62947-65
ACCESSION NR: AP5019289

during the fermentation were established. Applications in the production of streptomycin are discussed. The extracted paste was effective in the washing of vials used for antibiotics: 95 to 99% of the vials were clean after the first washing, as compared to 40% when trisodium phosphate was used. Orig. art. has: 2 tables.

ASSOCIATION: Saranskiy zavod meditsinskikh preparatov (Saran' Drug Factory)

SUBMITTED: 00

ENCL: 00

SUB CODE: OC, LS

NO REF SOV: 002

OTHER: 000

Card 2/2

RUMYANTSEV, V.I.; KRUPNOV, L.N.

Improvements in the production of aluminum caps for flasks with
antibiotics. Med.prom.17.no.4:43-46 Ap '63. (MIRA 16:7)

1. Saranskiy zavod meditsinskikh preparatov.
(ANTIBIOTICS--CONTAINERS)

RUMYANTSEV, V.I., doktor sel'khoz. nauk; GOMENYUK, L.I., red.

[Soil cultivation practices in arid regions of the southeast] Sistema obrabotki pochv v zasushlivykh raionakh Iugo-Vostoka. Moskva, Kolos, 1964. 197 p. (MIRA 17:11)

BOLOBAN, N.A., kand.tekhn.nauk; RUMYANTSEV, V.I., inzh.

"Temporary instructions VU 10-61 for assembly of the precast
reinforced concrete elements of blast-furnace plants". Prom.stroi.
40 no.8:62-63 '62. (MIRA 15:11)
(Precast concrete construction-Standards)

SMOL'SKAYA, A.Z., kand.tekhn.nauk; RUMYANTSEV, V.I., inzh.

"Instructions SNI80-61 for the assembly and inspection of precast
reinforced concrete elements." Prom.stroi. 40 no.8:61-62 '62.
(MIRA 15:11)

(Precast concrete construction-Standards)

RUMYANTSEV, V.I.; YEZHOV, V.A.

Use of technical phenoxyacetic acid as a precursor of phenoxyethyl penicillin. Med.prom. 16 no.5:51-52 My '62. (MIRA 15:9)

1. Saranskiy azvod meditsinskikh preparatov.
(PENICILLIN) (ACETIC ACID)

RUMYANTSEV, V. I., kand.sel'skokhozyaystvennykh nauk

"Agricultural problems in the Southeast" by I.S. Sidorov. Reviewed
by V.I. Rumiantsev. Zemledelie 8 no.10:92-96 0 '60.

(MIRA 13:10)

(Volga Valley--Agriculture)
(Sidorov, I.S.)

COUNTRY : USSR J
CATEGORY : Soil Science. Fertilizers.
ABS. JOUR. : RZhBiol., No. 4, 1959, No. 15435
AUTHOR : Rumyantsev, V.I.
INST. :
TITLE : Technique of Soil Treatment Experiment according
to the System of T.S. Mal'tsev.
ORIG. PUB. : S. Ch. Povolzh'ya, 1957, No.6, 14-16
ABSTRACT : In a study of the system of soil treatment pro-
posed by T.S. Mal'tsev as compared with the or-
dinary treatment of the soil it is necessary to
strictly observe the method of the field experi-
ment. In an analysis of the turn-over and non-
turn-over of tillable and subtilizable horizons
of soil all other conditions of the experiment
must be the same or maximally close. Such ex-
periments should be conducted without fail on
one field, inasmuch as the depth of the plowing

Card: 1/2

SCAFTERY :
CATEGORY :
ARG. JOUR. : RZhBiol., №. 4, 1959, №. 15433
AUTHOR :
TYPE :
TITLE :
CITE. PUB. :
ABSTRACT : and licensing must be the same. Examples
are offered. -- P.V. Shramko

Card: 2/2

30

USR / Soil Science. Tillage. Reclamation. Erosion. J

Abs Jour: Ref Zhur-Biol., No 2, 1959, 6100.

Author : Rumyantsev, V. I.

Inst : Timiryazev Agric. Academy.

Title : Experiment of Increasing and Conserving Soil
Moisture in the South-East.

Orig Pub: Izv. Timiryazevsk. s.-kh. akad., 1957, No 5,
215-224.

Abstract: It is recommended in Buzulukskiy Rayon Chkalov-
skaya Oblast' that deep plowing of stubble (about
10 centimeters) be applied in arid years to in-
sure a significant accumulation of moisture in cul-
tivated soils.

Card 1/1

39

CHIZHEVSKIY, M.G., doktor sel'skokhoz.nauk; RUMYANTSEV, V.I., kand.sel'-skokhoz.nauk

Basic tillage of Chernozem soils and their cultivation before sowing in the southeast. Zemledelie 7 no.7:19-26 J1 '59.
(MIRA 12:9)

1. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya imeni K.A.Timiryuzeva.
(Volga Valley--Chernozem soils)

CHIZHEVSKIY, M.G., prof., doktor sel'skokhoz.nauk; RUMYANTSEV, V.I., kand.
sel'skokhoz.nauk

Cultivation of clean fallows in the Southeast. Zemledelie 7 no.9:
81-84 S '59. (MIRA 12:11)

1. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya imeni
K.A. Timiryazeva. (Volga Valley--Fallowing)

BOBIN, K.P.; GERASIMOV, N.S.; GOLUBEV, S.G.; DEMIDOV, P.G.; DEM'YANENKO, M.P.;
YEVTYUSHKIN, N.M.; ZEMSKIY, M.I.; KALASHNIKOV, K.A.; KONCHAYEV, B.I.;
KOROL'EV, A.I.; KRZHIZHANOVSKIY, P.I.; KULAKOV, G.M.; POLOSUKHIN, M.N.;
ROYTMAN, M.Ya.; RUMYANTSEV, V.I.; SEMUSHKIN, B.V.; SMUROV, A.N.;
TARASOV-AGAKOV, N.A.; TOMASHEV, A.I.

Semen Vasil'evich Kaliaev; obituary. Pozh. delo 4 no.5:29 My '58.
(Kaliaev, Semen Vasil'evich, 1904-1958) (MIRA 11:5)

USSR / Soil Science. Physical and Chemical Properties
of Soils.

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95684.

Author : Chizhevskiy, M. G., Romyantsev, V. I.

Inst : Timiryazev Agricultural Academy.

Title : On the Problem of Conditions for Soil Structuring.

Crig Pub: Izv. Timiryazevsk. s.-kh. akad., 1957, No 5,
91-106.

Abstract: As a result of tests conducted on turf-podzolic soils from different rayons of Moscow Oblast, it is clear that soils of average clay mechanical composition are structured within one year under the effect of perennial grasses. Soils of dusty-heavily clay and dusty-clay mechanical composition are structured after 3 annual crops of perennial grasses. The water permeability of the

Card 1/2

USSR / Soil Science. Physical and Chemical Properties J
of Soils.

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95684.

Abstract: aggregates is greatest with a humidity of the soil of about 50% of the capillary moisture capacity. Aggregates prepared with lime are noted for less water stability, which can be explained by the activation of vital activity of the aerobic bacteria that destroy the organic substance. With fluctuations of moisture from 50 to 20%, a better combination of aerobic and anaerobic microbiological processes is created, which raises the water stability of the aggregates. -- S. A. Nikitin.

Card 2/2

RUMYANTSIV, V.I., kand.sel'skokhozyaystvennykh nauk

Role of shelterbelts in crop cultivation. Izv. TSKhA no.4:
89-98 '58. (MIRA 11:10)
(Windbreaks, shelterbelts, etc.)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6

CHIZHEVSKIY, M.G., doktor sel'skokhozyaystvennykh nauk; RUMYANTSEV, V.I.
kand. sel'skokhozyaystvennykh nauk.

Factors influencing the development of soil structure [with summary
in English] Izv. TSKhA no.5:91-106 '57. (MIRA 11:1)
(Soil physics)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020017-6"

RUMYANTSEV, V.I.

RUMYANTSEV, V.I., kand.sel'skokhozyaystvennykh nauk.

Dynamics of soil structure in field crop rotations on turf-Podzolic soils of the non-Chernozem zone [with summary in English] Izv. TSKhA no.5:107-120 '57. (MIRA 11:1)
(Podzol) (Rotation of crops)

Rumyantsev, V. I.
RUMYANTSEV, V. I., kand. sel'skokhozyaystvennykh nauk.

Moisture accumulation and preservation in soils of the Southeast
[with summary in English]. Izv. TSKhA no.5:215-224 '57.

(MIRA 11:1)

(Soil moisture)

RUMYANTSEV, V. I., SHURGIN, A. P., PARANZIN, I. I.

Soils

Dynamics of the structure of soil under crop rotations; correct theory of the working of soil, and the erroneous interpretation of the theory. Pochvovedenie no. 4 (1952)

Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

611

S/048/60/024/03/10/019
B006/B014

24.6720

AUTHORS: Dzhelepov, B. S., Rumyantsev, V. L., Khol'nov, Yu. V.
Shchukin, G. Ye.TITLE: The Gamma Spectrum of W^{187} PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960,
Vol. 24, No. 3, pp. 311-312

TEXT: The article under review was read at the Tenth All-Union Conference on Nuclear Spectroscopy (Moscow, January 19 - 27, 1960). The authors studied the γ -emission of W^{187} by means of a magnetic γ -spectrometer (rytron); three series of measurements were made with a source of about 1,000 millicuries. The total spectrum of recoil electrons is illustrated. The measured energies and the relative intensities referred to the intensity of the 488-kev line are compiled in a table. The following lines (in kev) - the respective intensities are given in parentheses - were detected: 488 (100), 558 (22.5 ± 1.7), 622 (31.2 ± 2.5), 691 (119 ± 7), 778 (22.2 ± 1.5), 864 ± 9 (1.4 ± 0.3), 891 ± 9 (1.1 ± 0.3). *X*

Card 1/2

The Gamma Spectrum of W¹⁸⁷

S/048/60/024/03/10/019
B006/B014

These results are compared with those obtained by Mueller et al. and Dubey et al. No γ -lines with intensities > 0.3 per cent of that of the 488-kev line could be observed in the range 950 \pm 1,350 kev. There are 1 table and 6 references, 1 of which is Soviet.

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR
(Radium Institute imeni V. G. Khlopin of the Academy of Sciences, USSR)

Card 2/2

X

RUMYANTSEV, V.N.

Case of congenital reticulosia. Problemy genet. i perel. krovi
(MIRA 17:8)
8 no.8:49-50 Ag '63.

1. Iz kafedry detskikh bolezney (zav. - prof. A.I. Miloserdova)
Kuybyshevskogo meditsinskogo instituta.

RUMYANTSEV, V.N., inzh.

Mechanization of plastering operations. Stroi.prom. 27 no.1:
11-13 Ja '49. (MIRA 13:2)

1. Tekhnicheskoye upravleniye Ministerstva stroitel'stva
predpriyatiy tyazheloy industrii.
(Plastering --Equipment and supplies)

RUMYANTSEV, V. N., Engr

USSR/Engineering
Plaster
Construction Materials

Jan 49

"Mechanization of Plastering Work (From Experience
of the Operations of the Glavuralstroy Trusts),"
V. N. Rumyantsev, Engr, Tech Adm of Mintyazhstroy,
24 pp

PA 26/49T41
"Sroitel' Prom" No 1

Describes ideal installation for preparing
plaster to be used in mass-housing projects.
Method had been tested at projects by Sverdlovsk-
stroy, Uralstroy, Bazstroy and other construction
trusts. Gives sketches of the installation.

26/49T41

USSR/Engineering (Contd)

Jan 49

Final mixing tank can hold up to 375 liters of
mixed plaster. A Sverdlovskpromestroy plastering
crew can plaster the inside of a two-story build-
ing (850 sq m) in 16-20 hours.

26/49T41

RUMYANTSEV, V.N.

Acquired autoimmune hemolytic anemia in children. Pediatriia
no.9:73-76 '61. (MIRA 14:8)

1. Iz kafedry detskikh bolezney (zav. - prof. A.I. Miloserdova)
Kuybyshevskogo meditsinskogo instituta (dir. - kand.med.nauk
D.A. Voronov).
(ANEMIA)

LOZHIN, L.N.; RUMYANTSEV, V.P.

Effect of the composition of carbon anodes on their specific
electric resistance. Trudy IPI no.223:43-48 '63.
(MIRA 17:11)

BAKANOV, N.I., inzh.; RACHINSKIY, M.N., inzh.; RUMYANTSEV, V.P., inzh.

Why there was a delay in the mastering of the production lines
in Iskitim. Stroi. mat. 11 no.4-7-8 Ap '65. (MIRA 18:6)

RUMYANTSEV, V.V.

RUMYANTSEV, V.V.

Pora Stroit' Goryuchiye Slantsy, 1935, No. 4, 55.

SO: Goryuchiye Slantsy No. 1934-35 TN. 871
G74

RUMYANTSEV VV

Rumyancev, V. V. On reduction of elliptic integrals to canonical form. Akad. Nauk SSSR. Inzenernyi Sbornik 5, no. 2, 213-218 (1949). (Russian)

The following elliptic integral is considered: $\int [f(t)]^{-1} dt$, where $f(t)$ is a polynomial of the fourth degree with real coefficients. It is shown that this integral can be reduced to the canonical form $\int [(t^2 \pm \epsilon_1^2)(t^2 \pm \epsilon_2^2)]^{-1} dt$ by means of the bilinear complex transformation $(t-l)(t'-m)=n^2$ with real l, m, n . A detailed proof, making use of geometrical arguments, is given. The three cases are treated separately.

H. A. Lauwerier (Amsterdam).

Source: Mathematical Reviews,

Vol 12 No. 8

8/22/2000

RUMYANTSEV

USSR/Mathematics - Rotating fixed body

FD-844

Card 1/1 : Pub. 85 - 9/14

Author : Rumyantsev, V. V. (Moscow)

Title : Stability of rotation of a heavy solid body with one fixed point in the case of S. V. Kovalevskaya

Periodical : Prikl. mat. i mekh., 18, 457-458, Jul/Aug 1954

Abstract : Considers the perturbed forms of the Euler equations of motion of a heavy solid body rotating around a fixed point. Constructs the Lyapunov function connecting linearly the integrals of the equations of the disturbed motion. Finds the condition for absolute stability of motion. Three references, 2 USSR (N. G. Chetayev, "Stability of rotation of a body with one fixed point in the Lagrange case," PMM, 18, No. 1, 1954. A. M. Lyapunov, Obshchaya zadacha ob ustoychivosti dvizheniya [General problem of the stability of motion], ONTI, 1935.)

Institution : Institute of Mechanics, Acad. Sci. USSR

Submitted : April 14, 1954

RUMYANCEV, V.V.
TS

✓ Rumyancev, V. V. On stability under the conditions of $\dot{r} = F/W$
S. A. Čaplygin of the screw motion of a rigid body in a

fluid. Prikl. Mat. Meh. 19, 229-230 (1955). (Russian)

The paper applies Kirchhoff's equations [cf. Lamb,
Hydrodynamics, 6th ed., Cambridge, 1932, ch. vi], for

which he gives credit to Čaplygin, to the case when the
kinetic energy T of the body-fluid system is given by

$$2T = (b+c)R_1^2 + (b-c)R_2^2 + bR_3^2 + P_1^2 + P_2^2 + 2P_3^2,$$

where (R_1, R_2, R_3) and (P_1, P_2, P_3) are, respectively, the
projections on a body-bound frame $Ox_1x_2x_3$, of the linear
impulse R and the angular impulse P . The weight of the
body and the displaced fluid are equal, and the unused
assumption is made that the mass centers of both are at the
same distance from Ox_2x_3 . Then R^2 and the scalar product
 $R \cdot P$ are constant, and the energy integral exists. The
special case is considered when R and P have the same
constant direction in Ox_2x_3 , and, therefore, are both constant
in space. This uniform screw motion is shown to be stable
by Lyapunov's second method. [In Čaplygin's case $R \cdot P = 0$.]

A. W. Wundheiler (Chicago, Ill.).

OVER

①

RUMYANCEV, V.V.

Harlamov, P. V. A case of integrability of the equations of motion of a heavy rigid body in a fluid. Prikl. Mat. Meh. 19, 231-233 (1955). (Russian)

The problem of the preceding review is here considered for the case of "helicoidal symmetry" [Lamb, loc. cit., p. 174, case 7°], i.e.,

$$2T = a(R_1^2 + R_2^2) + 2b(R_1P_1 + R_2P_2) + c(P_1^2 + P_2^2) + fR_2^2 + 2gR_1P_2 + hP_2^2$$

(the notation is the same as in the preceding review, not the paper's). The linear impulse is constant in the inertial frame. The assumption is made that it is vertical, which makes the vertical component of the angular impulse a constant. The energy integral exists, and a fourth integral is found stating that the axial component of the angular impulse is constant. The four integrals yield a solution in terms of elliptic functions, similar to that of the Lagrange-Poisson case. The special case of axial uniform screw motion is proved to be stable by the same method as in the preceding review. *A. W. Wundheiler* (Chicago, Ill.).

2/2